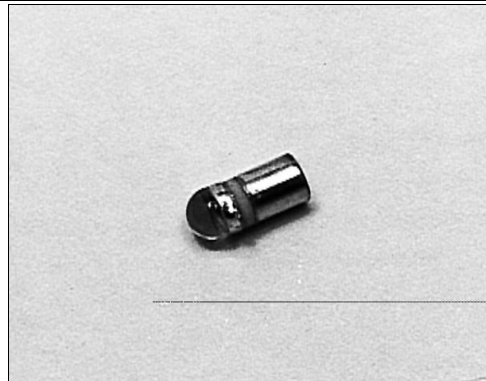


# SE2460

## GaAs Infrared Emitting Diode

### FEATURES

- Miniature, hermetically sealed, pill style, metal can package
- 18° (nominal) beam angle
- Wide operating temperature range (- 55°C to +125°C)
- Ideal for direct mounting to printed circuit boards
- 935 nm wavelength
- Mechanically and spectrally matched to SD2420 photodiode, SD2440 phototransistor and SD2410 photodarlington



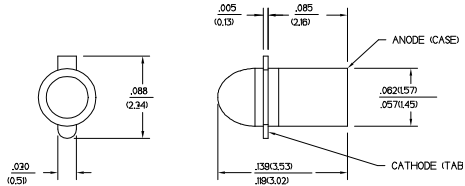
INFRA-1.TIF

### DESCRIPTION

The SE2460 is a gallium arsenide infrared emitting diode mounted in a hermetically sealed, glass lensed, metal can package. This package directly mounts in double sided PC boards.

### OUTLINE DIMENSIONS in inches (mm)

Tolerance 3 plc decimals  $\pm 0.005(0.12)$   
2 plc decimals  $\pm 0.020(0.51)$



DIM\_002.dwg

# SE2460

## GaAs Infrared Emitting Diode

### ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	TEST CONDITIONS
Total Power Output	$P_o$				mW	$I_F=50$ mA
SE2460-001		0.27				
SE2460-002		0.40				
SE2460-003		1.00				
Forward Voltage	$V_F$			1.6	V	$I_F=50$ mA
Reverse Breakdown Voltage	$V_{BR}$	3.0			V	$I_R=10$ $\mu$ A
Peak Output Wavelength	$\lambda_p$		935		nm	
Spectral Bandwidth	$\Delta\lambda$		50		nm	
Spectral Shift With Temperature	$\Delta\lambda_p/\Delta T$		0.3		nm/ $^{\circ}$ C	
Beam Angle <sup>(1)</sup>	$\emptyset$		18		degr.	$I_F=$ Constant
Radiation Rise And Fall Time	$t_r, t_f$		0.7		$\mu$ s	

#### Notes

1. Beam angle is defined as the total included angle between the half intensity points.

### ABSOLUTE MAXIMUM RATINGS

(25°C Free-Air Temperature unless otherwise noted)

Continuous Forward Current	75 mA
Power Dissipation	125 mW <sup>(1)</sup>
Operating Temperature Range	-55°C to 125°C
Storage Temperature Range	-65°C to 150°C
Soldering Temperature (10 sec)	260°C

#### Notes

1. Derate linearly from 25°C free-air temperature at the rate of 1.19 mW/ $^{\circ}$ C, when soldered into a double sided printed circuit board.

### SCHEMATIC



Honeywell reserves the right to make changes in order to improve design and supply the best products possible.

# Honeywell

# SE2460

## GaAs Infrared Emitting Diode

Fig. 1 Radiant Intensity vs Angular Displacement gra\_111.ds4

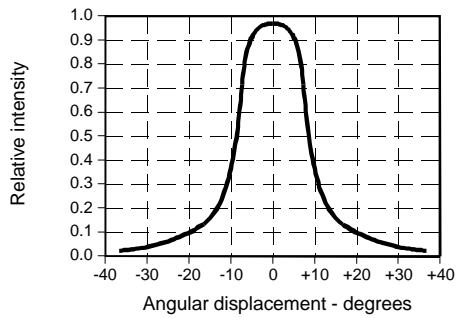


Fig. 2 Radiant Intensity vs Forward Current gra\_014.ds4

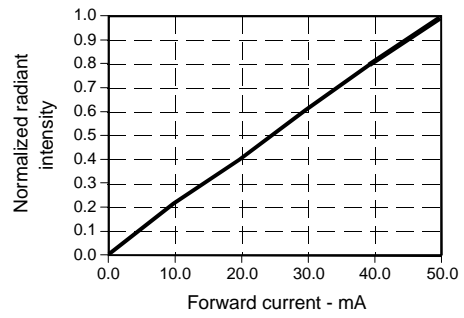


Fig. 3 Forward Voltage vs Forward Current gra\_203.ds4

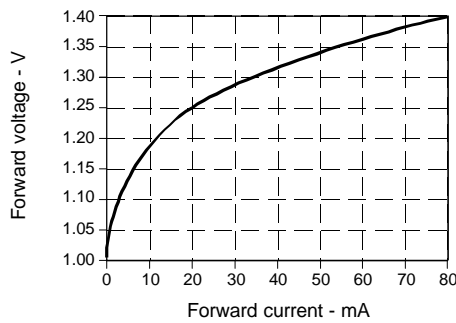


Fig. 4 Forward Voltage vs Temperature gra\_200.ds4

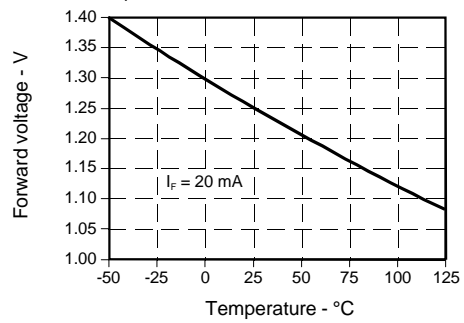


Fig. 5 Spectral Bandwidth gra\_005.ds4

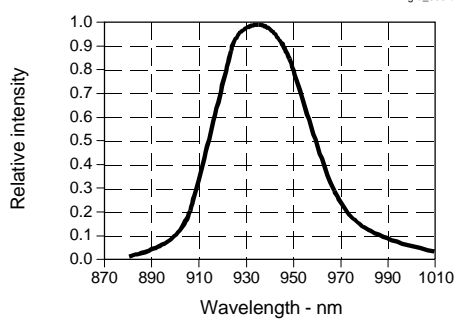
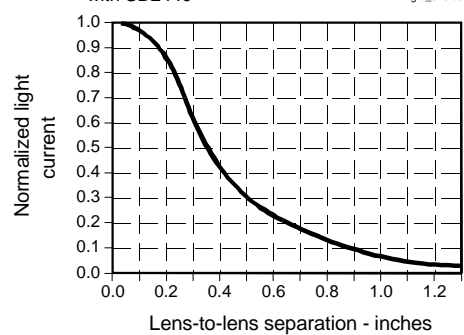
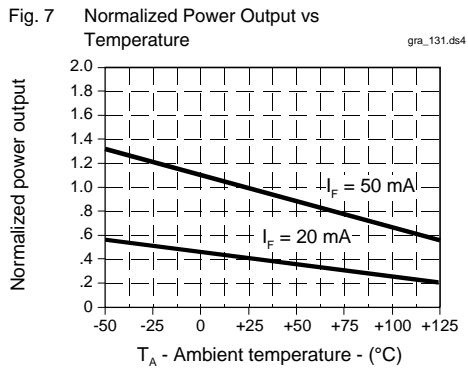


Fig. 6 Coupling Characteristics with SD2440 gra\_015.ds4



# SE2460

GaAs Infrared Emitting Diode



All Performance Curves Show Typical Values